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DIGITAL & ANALOG DEVICES

# NEW TECHNOLOGY GUIDE

## MARCH 2014

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# DIGI-P122 / DIGI-P123 PRESENTATION SWITCHERS

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## DIGI-P122

## DIGI-P123

The Intelix **DIGI-P122** and **DIGI-P123** presentation switchers replace a rack full of audio-visual equipment with a compact, easy-to-integrate solution designed specifically for demanding commercial applications.

Each unit combines Intelix's award-winning switching and extension technology with scaling, mic/line mixing, independent channel volume control, and speaker amplification. Plus, improved video processing delivers pristine video in both 16x9 and 16x10 output aspect ratios.

Forget the clutter of traditional corporate AV, education and hospitality systems—Intelix delivers features and performance at a price the others simply can't touch.

## Key Features

TWELVE TOTAL INPUTS
- 4 HDMI
- 4 VGA
- 4 A/V

TWO OUTPUTS (DIGI-P122)
- HDMI
- VGA

THREE OUTPUTS (DIGI-P123)
- HDMI
- VGA
- HDBaseT extender

- 16x9 and 16x10 output scaling
- Twisted pair extension up to 230 feet
- Image position adjustment
- RS232, Ethernet, IR and front panel control
- Web GUI accessible from internet browser
- Audio embedding and de-embedding
- Built-in 20W speaker amplification
- Mic/line mixing with volume control
- Compact 1 RU design
- 3 second average switching times when scaling
- Internal power supply

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**Intelix DIGI-P122 and DIGI-P123 presentation switchers reduce system cost by combining switching, scaling, format conversion, mic/line mixing, speaker amplification and twisted pair extension in a single chassis.**



DIGI-P122 / DIGI-P123 PRESENTATION SWITCHERS

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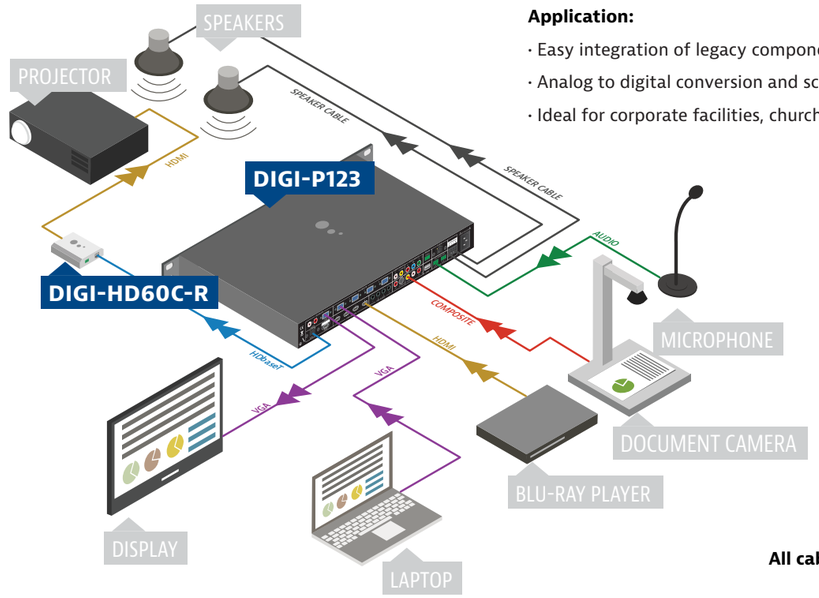



**Application:**

- Easy integration of legacy components into a digital environment
- Analog to digital conversion and scaling up to 1080p
- Ideal for corporate facilities, churches, schools, and conference centers

**All cables are available from Liberty!**

LIBERTY AV SOLUTIONS

## Similar Products

### 11 INPUT BY 2 OUTPUT SWITCHER SCALER — DIGI-SCAL-11X2

- Switching, scaling and format conversion in a single chassis
- RS232, IR and front panel control
- 11 analog and digital inputs
- Dual paralleled HDMI outputs
- 720p and 1080p output scaling
- Analog and digital output audio de-embedding
- Compact 1 RU design
- Ideal for budget conscious applications requiring 720p or 1080p output resolutions

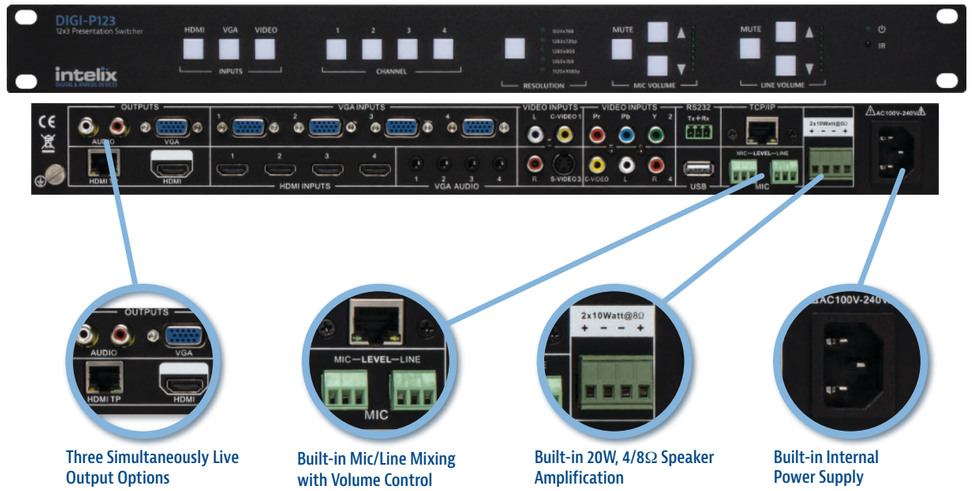
### 5 INPUT BY 1 OUTPUT SWITCHER SCALER — DIGI-SCAL-5

- Switching, scaling and format conversion in a single chassis
- RS232, IR and front panel control
- 5 analog and digital inputs
- HDMI output
- Digital output audio de-embedding
- Expanded 16x9 and 16x10 output resolutions
- Audio delay for lip sync correction
- Ideal for small-to-medium applications requiring best-in-class video processing

### VGA & STEREO AUDIO TO HDMI CONVERTER — VGA-HD

- Converts VGA and stereo audio to HDMI
- Compact design
- Maintains native resolutions to ensure pristine video
- Built-in EDID presets for common 16x9 and 16x10 output resolutions
- Dynamic EDID compatibility ensures PCs default to compatible output resolutions
- Ideal for applications requiring analog computer integration into a digital network

Twelve Analog and Digital Inputs




## DIGI-P122/P123 TECH SPECS

### INPUT CONNECTIONS

| | |
|---|---|
| HDMI Inputs | Four (4) HDMI type A |
| VGA Inputs | Four (4) HD15-F, Four (4) 3.5mm TRS-F |
| Composite Video 1 | One (1) RCA-F (video), Two (2) RCA-F (stereo audio shared with S-Video 3) |
| YPbPr 2 (Component Video) | Three (3) RCA-F (video), Two (2) RCA-F (stereo audio shared with Composite Video 4) |
| S-Video 3 | One (1) 4PMD-F (video), Two (2) RCA-F (stereo audio shared with Composite Video 1) |
| Composite Video 4 | One (1) RCA-F (video), Two (2) RCA-F (stereo audio shared with YPbPr 2) |
| Microphone Input (Line Level) | One (1) 3-Pole/3.5mm Euroblock (audio summed with Mic Level input) |
| Microphone Input (Mic Level) | One (1) 3-Pole/3.5mm Euroblock Connector (audio summed with Line Level input) |
| Control (Front Panel) | Push Button, IR |
| Control (Rear Panel) | RS232 via 3-Pole/3.5mm Euroblock, TCP/IP via 8P8C, RS232 via HDBaseT Output (8P8C-F)* |
| Power Input | One (1) IEC-C14 Power Inlet |
| Firmware Upgrade | USB Type A Female |

### OUTPUT CONNECTIONS

| | |
|---|---|
| HDMI Output | One (1) HDMI type A |
| VGA Output | One (1) HD15-F |
| Stereo Analog Audio | Two (2) RCA (stereo audio) |
| HDBaseT Output (DIGI-P123) | One (1) 8P8C-F |
| Speaker Output | One (1) 4-Pole/5.08mm Euroblock |

### VIDEO PERFORMANCE

| | |
|---|---|
| HDMI Input Bandwidth | 4.95Gbps (1.65Gbps per color) |
| HDMI Input Resolutions | 640x480@60Hz, 640x480@72Hz, 640x480@75Hz, 800x600@56Hz, 800x600@60Hz, 800x600@72Hz, 800x600@75Hz, 1024x768@60Hz, 1024x768@70Hz, 1024x768@75Hz, 1280x1024@75Hz, 1360x768, 1920x540, 1920x1080i, 1920x1080p |
| HDMI Input Compatibility | HDMI 1.3, DVI-D |
| HDMI Input Compliance | HDCP Compliant** |
| VGA Input Bandwidth | 375MHz |





## TECH SPECS CONT.

| | |
|---|---|
| VGA Input Resolutions | 640×480@60Hz, 640×480@72Hz, 720×400@70Hz, 800×600@60, 800×600@72Hz, 800×600@75Hz, 1024×768@60 Hz, 1024×768@70Hz, 1024×768@75Hz, 1280×1024@75Hz, 1280×768, 1360×768@60Hz, 1920×1080, |
| VGA Input Compatibility | RGBHV, RGBs, RGsB, RsGsBs |
| Composite, S-Video Input Bandwidth | 150MHz |
| Composite, S-Video Input Compatibility | NTSC 3.58, NTSC 4,42, PAL, SECAM |
| Component Video Input Bandwidth | 170MHz |
| Component Video Input Resolutions | 480i, 480p, 576i, 576p, 720p, 1080i, 1080p |
| Output Resolutions | 1920x1080, 1360x768, 1280x720, 1280x800, 1024x768 |
| Video Impedance | 75 ohm |
| Maximum Pixel Clock | 145MHz |
| Video Gain | 0dB |
| Signal Level | 0.5V~2.0Vp-p |

### AUDIO PERFORMANCE

| | |
|---|---|
| RCA/3.5mm Input Signal Level | -10dBv Nominal |
| RCA/3.5mm Input Impedance | >10k ohm |
| MIC Input Signal Level | -48dB Nominal (Mic input), +4dBu Nominal (Line Input) |
| MIC Input Impedance | 600 ohm (Mic input), >10k ohm (Line input) |
| ADC Format | 24bit, 48kHz, 2ch LPCM |
| Line Level Output Impedance | 50 ohm |
| Speaker Output | 2x10W @ 8ohm / 2x20W @ 4ohm |
| Frequency Response | 20Hz-20kHz |
| Stereo Channel Separation | >80dB @ 1kHz |
| Common Mode Rejection | >90dB @ 20Hz-20kHz |

### EXTENDER SIGNAL CHARACTERISTICS

| | |
|---|---|
| Maximum Distance per Linked | 70m (230') |
| Unit (Cat 5e) | Painted Aluminum |
| Cable Requirements | Category 5e, 6, or 6A with TIA/EIA-568B crimp pattern |
| Bandwidth | 6.75 Gbps |
| Input DDC Signal | 5.0 volts p-p (TTL) |
| Input Video Signal | 0.5 to 1.0 volts p-p |

### CHASSIS AND ENVIRONMENTAL

| | |
|---|---|
| Enclosure | Painted Aluminum |
| Dimensions | 483mm x 235mm x 44mm (19 x 9.25 in. x 1.73) – 1RU |
| Shipping Weight | 3.74 kg (8.25 lbs.) |
| Operating Temperature | 0° to +48° C (+32° to +120° F) |
| Operating Humidity | 10% to 90%, Non-condensing |
| Storage Temperature | -20° to +70° C (+14° to +158° F) |
| Storage Humidity | 10% to 85%, Non-condensing |

### POWER AND REGULATORY

| | |
|---|---|
| Maximum Power Consumption | 65 watts |
| Power Supply | 100vAC~240vAC, 50/60Hz |
| Regulatory | CE, RoHS |

### OTHER

| | |
|---|---|
| Warranty | 2 years |
| Included Accessories | IR Remote, Power Cable, Four (4) Rubber Feet, Serial Cable (DE9-F to Euroblock), Operation Guide |
| Compatible Receivers (A/V Only) | DIGI-HD70-R |
| Compatible Receivers (A/V and RS232) | DIGI-HDE-R, DIGI-HD60C-R |

*Requires Compatible HDBaseT Receiver
**VGA Output will turn off when encrypted content is selected.
Distances and picture quality may be affected by cable grade, cable quality, source and destination equipment, RF and electrical interference, and cable patches. Intelix specifications are based on straight-through cabling with standard-grade Cat 5e unless noted otherwise.

**The DIGI-P123 is the only presentation switcher to feature control over HDBaseT, allowing IR and RS232 control signals to be transmitted over twisted pair cable through connected DIGI-HD60C-R receivers.**

# DIGI-P122 / DIGI-P123 PRESENTATION SWITCHERS

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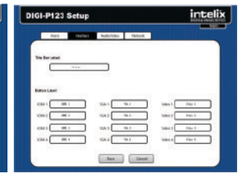
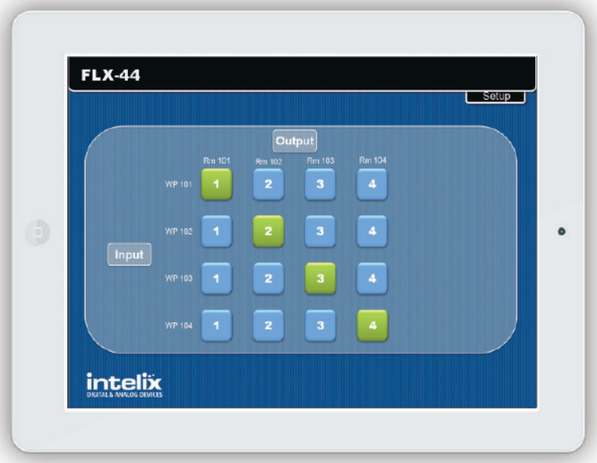
## EASY PEASY.

Controlling the DIGI-P122 & DIGI-P123 is a snap using its built-in interface. Simply point your browser to the IP address of the presenter you have installed and away you go.

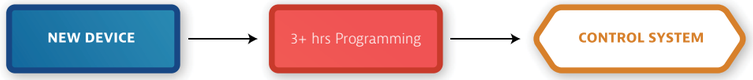
This means that any computer with a modern browser on the same network as the DIGI-P122 OR DIGI-P123 can be used as a controller.



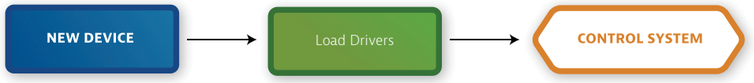

## PRE-PROGRAMMED SO YOU DON'T HAVE TO

Without Drivers:




Even if you love a new device, the cost of programming for the control system can make a new device cost-prohibitive for a new installation.

With Drivers:




With drivers made for a new device, the only programming time is to load the drivers into the control system. This saves both time and money.

Intelix works with some of the best control system manufacturers to provide pre-made drivers for many of our products.

Simply connect to a control system, load the driver for the supported Intelix product and enjoy all that new time on your hands.

Premade drivers available for the DIGI-P122 & DIGI-P123: AMX CRESTRON Extron

**The P122/123 Presentation Switcher works with these extenders and our HDMI adapter ring. Buy together and ensure a plug-and-play install with our guaranteed compatible products.**

**DIGI-HD60C-R**

**DIGI-HD70-R**

**DL-AR**



# ASW-WP AUTO-SWITCHING WALLPLATE

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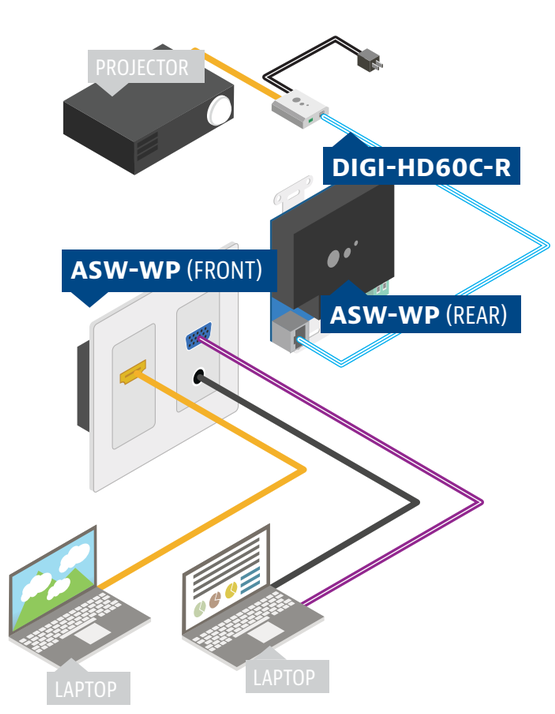
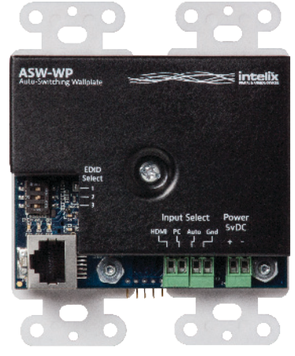
Boardrooms, classrooms, auditoriums and other mixed use environments continuously juggle the need for integrating VGA and HDMI laptops and tablets. The Intelix **ASW-WP** auto-switching wallplate merges the analog and digital worlds by providing HDMI and VGA/stereo audio source connectivity, and a fully digital HDBaseT extender output. Ideal for table, floor and wallbox installations, the **ASW-WP** automatically detects live video signal streams, switches between signals, embeds analog video and audio into a digital stream, and extends the signals up to 200 feet to a remote destination. Plus, embedded RS232 control provides remote display control and low power ECO modes.

The **ASW-WP** is compatible with Intelix HDBaseT matrix switchers and extenders. When used with an Intelix DIGI-HD60C-R twisted pair receiver, the **ASW-WP** receives power remotely via the connected twisted pair cable.

### Key Features

- HDMI and VGA/stereo audio inputs
- HDBaseT extender output
- 1080p distribution up to 60 meters
- 3D, 4kx2k distribution up to 35 meters
- Transmits RS232 commands for display control
- Automatic or manual switching
- VGA to HDMI conversion with audio embedding
- Local power or power over HDBaseT
- Shallow depth – 1.23 overall
- Double gang decora design
- Faceplate fully customizable with PanelCrafters™
- Customizable low power modes
- EDID logic and presets
- Selectable HDCP compliance

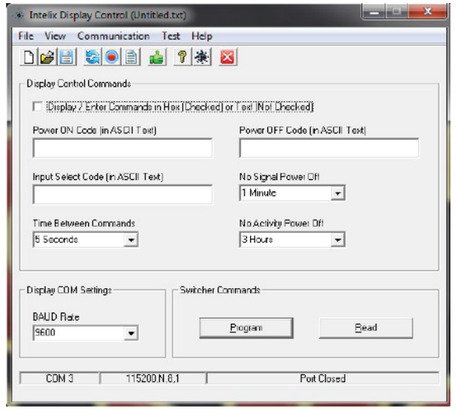




**The Intelix ASW-WP provides hands-free switching of analog and digital source inputs. It also features selectable HDCP compliance, ensuring non-compliant HDMI laptops and codecs can connect to the digital network.**

# ASW-WP AUTO-SWITCHING WALLPLATE

Intelix **ASW-WP** Display Control software provides seamless control of the connected display or projector. Route power on/off commands and input select commands via RS232, and preset power down commands based on inactivity.




### Key Features

- Power on and off remote displays and projectors
- Toggle inputs
- Create power down presets based on inactivity
- Ensure more Eco friendly installations

## ASW-WP TECH SPECS

### I/O CONNECTIONS

| | |
|---|---|
| HDMI Input | One (1) HDMI Type A Receptacle (Front) |
| VGA Input | One (1) Female PC Video HD-15-F Connector (Front) |
| PC Stereo Audio | One (1) 3.5 mm TRS Receptacle (Front) |
| HDBaseT Port | One (1) 8P8C port (Shielded RJ45) |
| Power | One (1) 2 Position Euroblock Connector |
| EDID Dipswitches | Three (3) dip switches |
| Contact Closures | One (1) 4 position Euroblock Connector |

### SUPPORTED AUDIO AND VIDEO

| | |
|---|---|
| HDMI Video Resolutions | SMPTE: 480i, 480p, 576i, 576p, 720p, 1080i, 1080p<br>VESA: Resolutions up to 4k<br>Color Depth: 24, 30, 36, 48bit |
| VGA Video Resolutions | SMPTE:<br>· 480p@60hz, 576p@60hz, 720p@60hz , 1080p@60hz<br>VESA:<br>· 640x480, 800x600, 1024x768, 1280x768, 1280x800, 1280x1024, 1600x1200, 1680x1050, 1920x1200(RB) - @60hz<br>· 640x480, 800x600, 1024x768, 1280x1024 - @85hz<br>· 1024x768 - @70hz<br>· 640x480, 800x600 - @72hz |
| Maximum Video Compatibility at 60 m | Deep Color 36/30/24 Bit at 1080p (HDMI Input) |
| Maximum Video Compatibility at 35 m | Deep Color 48 Bit at 1080p, 3D (HDMI Input) |
| Video Compliance | HDMI and HDCP (Selectable) |
| HDMI Embedded Audio | Up to PCM 8 channel, Dolby Digital TrueHD, and DTS-HD Master Audio |
| PC Embedded Audio | Analog stereo line-level (Converted to 2ch 24bit PCM 48kHz) |

**The Intelix ASW-WP embeds RS232 commands onto the HDBaseT extender output, allowing for seamless control of connected displays and projectors.**



# ASW-WP AUTO-SWITCHING WALLPLATE

## TECH SPECS CONT.

| | |
|---|---|
| ARC (Audio Return Channel) | No |
| HEC (HDMI Ethernet Channel) | No |
| CEC (Consumer Electronics Control) | Yes |
| Baud Rate (Wall plate control) | 9600 |
| Supported Baud Rates (Display Control) | 9600, 19200, 57600, 115200 |

### HDBASET SIGNAL CHARACTERISTICS

| | |
|---|---|
| Maximum Distance | 60 m |
| Cable Requirements | Category 5e, 6, or 6A with TIA/EIA-568B crimp pattern |
| Bandwidth | 10.2 Gbps |
| Gain | 0 dB – 10 dB at 100 MHz |
| Signal to Noise Ratio (SNR) | > 70 dB at 100 MHz over 100 m |
| Return Loss | < -30 dB at 5KHz |
| Total Harmonic Distortion (THD) | < 0.005% at 1 KHz |
| Min-Max Signal Level | < 0.3 V – 1.45 Vp-p |
| Differential Phase Error | ±10° at 135 MHz over 100 m |
| Regulatory | CE, RoHS |

### CHASSIS AND ENVIRONMENTAL

| | |
|---|---|
| Construction | Black painted metal plate (Back Cover) |
| Faceplate Colors | White, Almond (Sold Separately), Black (Sold Separately) – ABS Plastic |
| Dimensions | 114mm x 116mm x 35mm (4.49 in. x 4.57 in. x 1.38 in.) |
| Shipping Weight | 0.45 kg (1 lbs.) |
| Operating Temperature | 0° to +40° C (+32° to +104° F) |
| Operating Humidity | 20% to 90%, Non-condensing |
| Storage Temperature | -10° to +60° C (+14° to +140° F) |
| Storage Humidity | 20% to 90%, Non-condensing |

### POWER, ESD, AND REGULATORY

| | |
|---|---|
| Power Supply | 5vDC 2A or PoH (Power-Over-HDBaseT) |
| Power Consumption | 10 watts |
| Automatic Standby Mode | 30 minutes no signal |
| ESD Protection | 16kV |
| Regulatory | CE, RoHS |

### OTHER

| | |
|---|---|
| Warranty | 2 years |
| Diagnostic Indicators | Front Panel: Two (2) Bicolor LED: Blue, (Purple), Amber<br>HDBaseT: Three (3) SMDs: Heartbeat – Blue, Link – Yellow, HDMI – Green |
| Included Accessories | White Faceplate Set and Installation Manual |
| HDBaseT Receiver (A/V, PoH, Control) Compatibility | DIGI-HD60C-R |
| HDBaseT Receiver (A/V, Control) Compatibility | DIGI-HDE-R, FLX-BI4 |
| HDBaseT Receiver (A/V Only) Compatibility | DIGI-HD70-R |

Distances and picture quality may be affected by cable grade, cable quality, source and destination equipment, RF and electrical interference, and cable patches. Intelix specifications are based on straight-through cabling with standard-grade Cat 5e unless noted otherwise.

**The ASW-WP is fully customizable with PanelCrafters WebBlox software.**

The **SKYPLAY-MX** expands on Intelix's breakthrough SKYPLAY line of wireless HDMI extenders. The original SKYPLAY-HD broke barriers by being the first commercial-grade wireless HDMI solution to operate in real-time in both line-of-sight and through-wall applications. The SKYPLAY-MX advances the technology further with embedded IR control, dynamic EDID for greater compatibility and real-time negotiation, and addressable transmitters and receivers.

The **SKYPLAY-MX** is designed specifically for demanding custom install and commercial applications, including those with WiFi and other sources of wireless interference.

## Key Features

- Wireless HDMI distribution up to 100 feet
- Transmission through walls
- Addressable transmitters
- Less than 3 ms (1 frame) latency
- Dynamic EDID for greater compatibility and syncing
- IR control pass-through
- 1x4 up to 4 concurrent channels
- Distribute multiple transmitters to multiple receivers

# SKYPLAY-MX TECH SPECS

### I/O CONNECTIONS

| | |
|---|---|
| HDMI Input (SKYPLAY-MX-S) | One (1) HDMI Type A Receptacle Connector |
| HDMI Output (SKYPLAY-MX-R) | One (1) HDMI Type A Receptacle Connector |
| IR Repeater (SKYPLAY-MX-S) | One (1) 2.5mm (3/16) TS Male Connector |
| 5V DC Power (Both) | One (1) 5.5mm Outside Diameter, 2.1mm Inside Diameter Barrel |

### SUPPORTED AUDIO AND VIDEO

| | |
|---|---|
| Video Resolutions | 480i, 480p, 576i, 576p, 720p, 1080i, 1080p and VESA up to 1920X1080 |
| Color Depth | 30-bit |
| Audio | PCM 2.0, DTS and Dolby Digital |

### SIGNAL CHARACTERISTICS

| | |
|---|---|
| Wireless Transmission Technology | Amimon Pro |
| Standard Protocol | HDMI 1.3 |
| HDCP | Yes |
| Signal Bandwidth | 40MHz |
| Transmission Rate | 3 / 4.47 Gbps (depending on resolution) |
| Operating Frequency | 5 GHz Unlicensed Band (U-NII-1 & U-NII-3) |
| TMDS | 0.5 – 1.5 volts p-p |

**The Intelix SKYPLAY-MX allows multiple unique systems to operate in the same area. It also constantly monitors sources of wireless interference and, when necessary, automatically changes broadcast channels.**



SKYPLAY-MX WIRELESS HDMI

# TECH SPECS CONT.

| | |
|---|---|
| DDC | 5 volts p-p |
| System Latency | <1ms |
| IR Frequency | 38KHz |

### CHASSIS AND ENVIRONMENTAL

| | |
|---|---|
| Material | Black Plastic |
| Dimensions | 148mm x 97mm x 18mm (5.83 in. x 3.82 in. x 0.71 in.) |
| Shipping Weight | 0.91 kg (2 lbs.) |
| Operating Temperature | -10° to +40° C (+14° to +104° F) |
| Operating Humidity | 15% to 85%, Non-condensing |
| Storage Temperature | -20° to +80° C (-4° to +176° F) |
| Storage Humidity | 15% to 85%, Non-condensing |

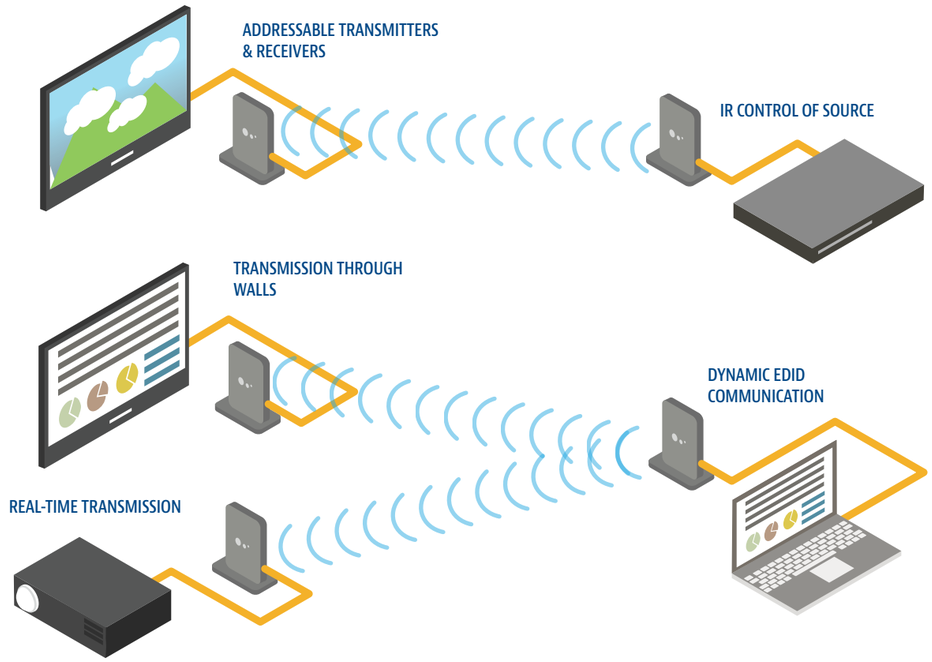
### POWER, ESD, AND REGULATORY

| | |
|---|---|
| Power Supply | 5VDC 2A |
| Power Consumption | 8 watts |
| ESD Protection | 15kV |
| Regulatory | FCC, CE, RoHS |

### OTHER

| | |
|---|---|
| Warranty | 2 years |
| Diagnostic Indicators | Network status and Video indicator LEDs |
| Included Accessories – SKYPLAY-MX-S | Installation Guide, Desktop Stand, IR Emitter, Power Supply and HDMI cable. |
| Included Accessories – SKYPLAY-MX-R | Installation Guide, Desktop Stand, IR Remote, Power Supply and HDMI cable. |
| RCA/3.5mm Input Impedance | >10k ohm |
| MIC Input Signal Level | -48dB Nominal (Mic input), +4dBu Nominal (Line Input) |
| MIC Input Impedance | 600 ohm (Mic input), >10k ohm (Line input) |

Distances and picture quality may be affected by cable grade, cable quality, source and destination equipment, RF and electrical interference, and cable patches. Intelix specifications are based on straight-through cabling with standard-grade Cat 5e unless noted otherwise.



# FLX-44 MATRIX SWITCHER

The Intelix **FLX-44** combines the performance of the DIGI-44B with the features of the FLEX Series, delivering even the most demanding integrator a 4x4 matrix solution.

The **FLX-44** provides four HDMI inputs, four HDBaseT extender outputs and two parallel HDMI outputs—and both the HDMI and HDBaseT outputs are live simultaneously. Each output channel features audio de-embedding and embedded RS232 and IR control for source and destination control. Plus, built-in power over HDBaseT (PoH) provides power to remote HDBaseT receivers.

## Key Features

- 4 HDMI inputs
- 4 HDBaseT outputs
- 2 HDMI outputs
- Twisted pair extension up to 60m (200 ft.)
- Matrix powers remote HDBaseT receivers
- Backlit crystal buttons for easy control
- PoH for remotely powering Intelix HDBaseT receivers
- RS232 and IR transmission for display control
- IR callback for source control
- 3D compatible
- Audio de-embedding per output
- Front panel, RS232, IR, and Ethernet control
- Selectable HDCP compliance
- Built-in ESD protection per channel

## FLX-44 TECH SPECS

### I/O CONNECTIONS

| | |
|---|---|
| HDMI Inputs | Four (4) HDMI Type A Receptacle Connector (1 per input) |
| HDMI Outputs | Two (2) HDMI Type A Receptacle Connector (1 per output) |
| HDBaseT Outputs | Four (4) 8P8C port (Shielded RJ45) (1 per output) |
| IR Inputs | Four (4) 3.5 mm jack (TRS) |
| IR All In | One (1) 3.5 mm jack (TRS) |
| IR Outputs | Four (4) 3.5 mm jack (TS) (1 per output) |
| IR Eye | One (1) 3.5 mm jack (TRS) |
| RS232 Tunnel | Four (4) 3-pole Removable Euroblock Connector (3.5mm) |
| Audio Outputs | Four (4) 3-pole Removable Euroblock Connector (3.5mm) |
| 48V DC Power | One (1) Amphenol 4pin CPC Female (11-4) |
| Control, Rear Panel | RS232 via DE-9, TCP/IP via 8P8C, IR via 3.5mm TRS |
| Control, Front Panel | Push Button, IR |

### SUPPORTED AUDIO AND VIDEO

| | |
|---|---|
| HDTV Video Resolutions | 480i, 480p, 576i, 576p, 720p, 1080i, 1080p |
| VESA Video Resolutions | Up to 1920x1200 |
| Embedded Audio Compatibility | Up to PCM 5 channel, Dolby Digital TrueHD, and DTS-HD Master Audio |
| Maximum Distance per Linked | 6.75 Gbps |
| Unit (Cat 5e) | 60m (197') |
| Maximum Distance per Linked | 1080i/2.0, 1080p 3D/2.0, 1080p/2.0, 1080p/5.1, 1080p/7.1, Copy and Use EDID from display |
| Unit (Cat 5e) @1080p 3D | 35m (115') |

### EXTENDER SIGNAL CHARACTERISTICS

| | |
|---|---|
| Cable Requirements | Category 5e, 6, or 6A with TIA/EIA-568B crimp pattern |
| Bandwidth | 6.75 Gbps |
| Input DDC Signal | 5.0 volts p-p (TTL) |
| Input Video Signal | 0.5 to 1.0 volts p-p |
| Supported IR Carrier Frequency | 33-55 kHz at 5 volts |

### CHASSIS AND ENVIRONMENTAL

| | |
|---|---|
| Enclosure | Painted Aluminum |
| Dimensions | 435mm x 235mm x 44mm (17.13 x 9.25x 1.73) |
| Rack Spacing | 1 RU |



FLX-44 MATRIX SWITCHER

## TECH SPECS CONT.

| | |
|---|---|
| Shipping Weight | 2.27 kg (5 lbs) |
| Operating Temperature | 0° to +40° C (+32° to +104° F) |
| Operating Humidity | 20% to 90%, Non-condensing |
| Storage Temperature | -10° to +60° C (+14° to +140° F) |
| Storage Humidity | 20% to 90%, Non-condensing |

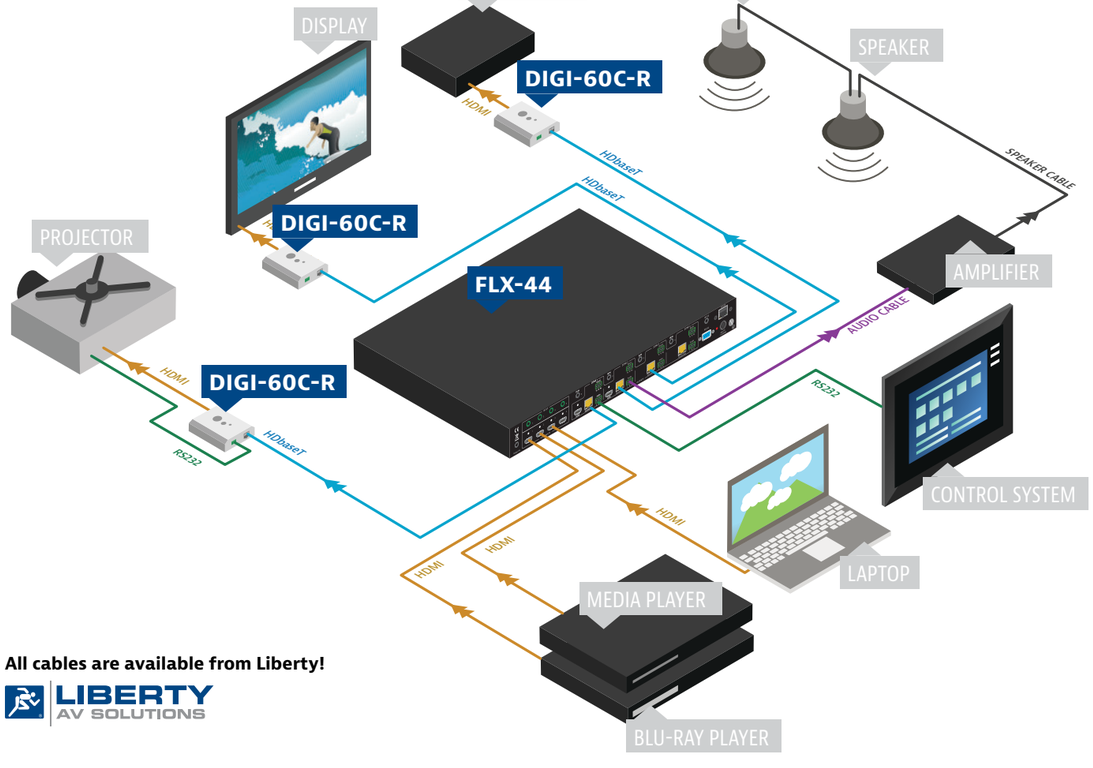
### POWER, ESD, AND REGULATORY

| | |
|---|---|
| Power Supply Input | 100V-240VAC / 1.8A |
| Power Supply Output | 48vDC / 5A |
| Power Consumption | 150 watts (max) |
| ESD Protection | 15kV |
| DIGI-44B Regulatory | CE, RoHS |
| Power Supply Regulatory | UL, FCC, CCC, CE, RoHS |

### OTHER

| | |
|---|---|
| Warranty | 2 years |
| Diagnostic Indicators | LCD output status and power LED |
| Included Accessories | Installation Guide, IR Remote, IR Emitter (4 ea), IR Receiver (4 ea), RS232 cable, US Power Cable and Power Supply, Mounting Brackets with screws |
| Compatible Receivers (A/V Only) | DIGI-HD70-R |
| Compatible Receivers (A/V, IR, and RS232) | DIGI-HDE-R |
| Compatible Receivers (A/V, IR, RS232, and PoH) | DIGI-HD60C-R |

Distances and picture quality may be affected by cable grade, cable quality, source and destination equipment, RF and electrical interference, and cable patches. Intelix specifications are based on straight-through cabling with standard-grade Cat 5e unless noted otherwise.




**All cables are available from Liberty!**

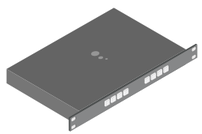
LIBERTY AV SOLUTIONS

## Key Features

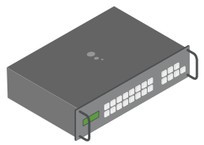
- 8x8, 16x16 and 32x32 card frames
- HDMI, HDBaseT, DVI, VGA, YPbPr, S-Video and Composite video input options
- HDMI, HDBaseT, and DVI output options
- Hot-swappable I/O cards
- Any input type to any output type
- RS232, IR, Ethernet and front panel control
- Built-in EDID management
- Redundant power supplies on larger models

Intelix **FLEX Series** matrices provide switching, scaling, format conversation, audio embedding and audio de-embedding all in a modular, card-based package. Available in systems as small as 4x4 and as large as 32x32, FLEX matrices replace a rack full of traditional gear.

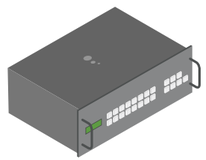
Each system is fully compatible with other Intelix HDBaseT electronics, including twisted pair extenders, auto switching wallplates, and presentation switchers.



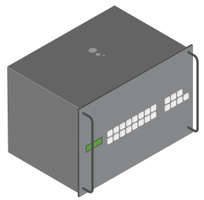
FLX-44



FLX-88



FLX-1616



FLX-3232

**The FLX-44 provides audio de-embedding per channel and PoH for remotely powering HDBaseT receivers.**



FLX-88/FLX-1616/FLX-3232 DIGITAL MATRICES

### FLX-HI4A

- HDMI input card with audio embedding
- Four HDMI inputs
- Locking screw poles

### FLX-DI4

- DVI input card
- Four DVI-D inputs
- Actively buffered EDID and DDC

### FLX-RI4

- VGA, YPbPr, SV & CV input card
- Four analog HD15 inputs
- Scaling to XGA, WXGA, 720p and 1080p

### FLX-BI4

- HDBaseT input card
- Four HDBaseT extender inputs
- Includes embedded IR and RS232 transmission

### FLX-HO4A

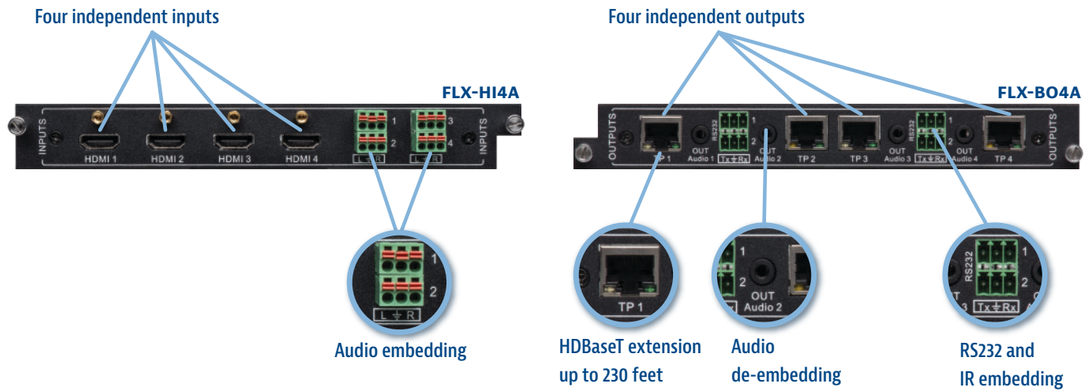
- HDMI output card with audio de-embedding
- Four HDMI outputs
- Locking screw poles

### FLX-DO4

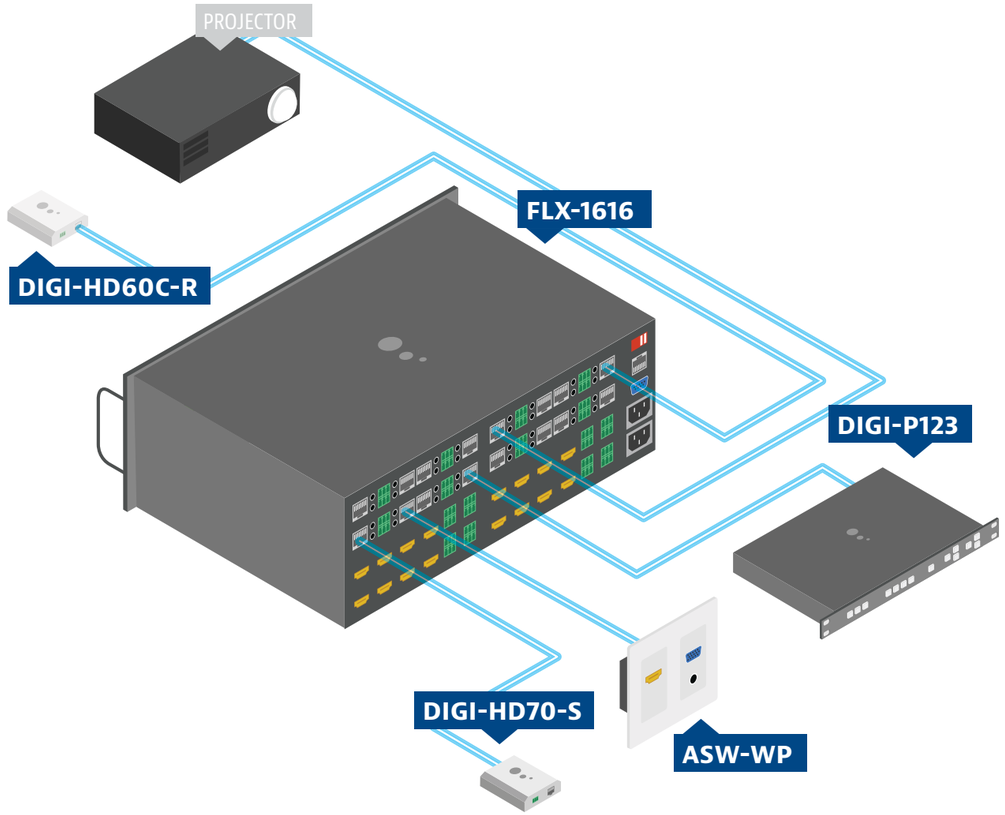
- DVI output card
- Four DVI-D outputs

### FLX-BO4A

- HDBaseT output card with audio de-embedding
- Four HDBaseT extender outputs
- Includes embedded IR and RS232 transmission




**FLEX Series cards allow you to customize the matrix based on your unique application.**




## FLEX MATRIX TECH SPECS

### I/O CONNECTIONS

| | |
|---|---|
| Supported Input Cards | FLX-BI4, FLX-DI4, FLX-HI4, FLX-RI4, FLX-HI4A |
| Supported Output Cards | FLX-BO4, FLX-DO4, FLX-HO4, FLX-BO4A, FLX-HO4A |
| Input and Output Card Securing Mechanism | Thumbscrew |
| Control, Rear Panel | RS232 via DE-9, TCP/IP via 8P8C Connector |
| Control, Front Panel | Push Button, IR |

**Each FLEX system is fully compatible with other Intelix HDBaseT electronics, including twisted pair extenders, auto switching wallplates, and presentation switchers.**



FLX-88/FLX-1616/FLX-3232

## TECH SPECS CONT.

### CHASSIS AND ENVIRONMENTAL

| | |
|---|---|
| Material | Black Painted Aluminum |
| Dimensions | **FLX-88**: 483mm x 356mm x 89mm (19 in. x 14 in. x 3.5 in.)<br>**FLX-1616**: 483mm x 356mm x 133mm (19 in. x 14 in. x 5.25 in.)<br>**FLX-3232**: 483mm x 356mm x 222mm (19 in. x 14 in. x 8.75 in.) |
| Rack Spacing | **FLX-88**: 2RU<br>**FLX-1616**: 3RU<br>**FLX-3232**: 5RU |
| Shipping Weight | **FLX-88**: 5.9 kg (13lbs.)<br>**FLX-1616**: 7.71 kg (17lbs.)<br>**FLX-3232**: 9.98 kg (22 lbs.) |
| Operating Temperature | 0° to +40° C (+32° to +104° F) |
| Operating Humidity | 20% to 90%, Non-condensing |
| Storage Temperature | -10° to +60° C (+14° to +140° F) |
| Storage Humidity | 20% to 90%, Non-condensing |

### POWER, ESD, AND REGULATORY

| | |
|---|---|
| Power Supply | 100-240VAC 50/60 Hz |
| Power Consumption | **FLX-88**: 60 watts Fully Populated<br>**FLX-1616**: 135 watts Fully Populated<br>**FLX-3232**: 280 watts Fully Populated |
| ESD Protection | 15kV |
| Regulatory | CE, RoHS |

### OTHER

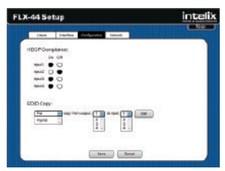
| | |
|---|---|
| Warranty | 2 years |
| Diagnostic Indicators | LCD output status and power LED |
| Included Accessories | Installation Guide, IR Remote, RS232 Cable, Power Cable, Modular Metal Blank, Rubber Feet (4 ea) and Intelix Pocket Screwdriver. |
| ESD Protection | 15kV |
| Regulatory | CE, RoHS |
| Warranty | 2 years |
| Diagnostic Indicators | LCD output status and power LEDs |

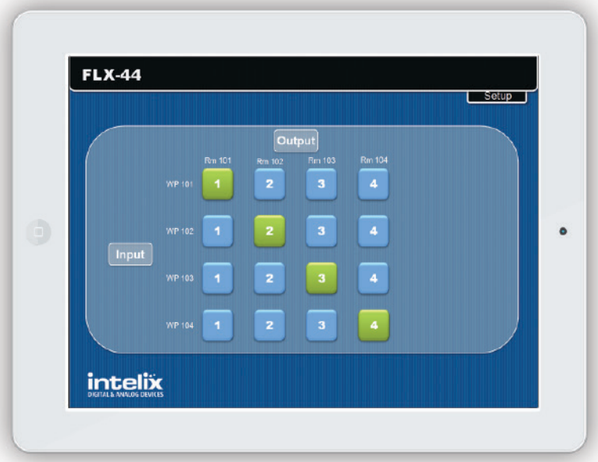
Distances and picture quality may be affected by cable grade, cable quality, source and destination equipment, RF and electrical interference, and cable patches. Intelix specifications are based on straight-through cabling with standard-grade Cat 5e unless noted otherwise.

# EASY PEASY.

Controlling the FLX series is a snap using its built-in interface. Simply point your browser to the IP address of the matrix you have installed and away you go.

This means that any computer with a modern browser on the same network as the installed FLX matrix can be used as a controller.





*Introducing:*

# DIGITALINX

## EASY, SOLID, AFFORDABLE DIGITAL SOLUTIONS.

Liberty AV is proud to annouce the re-birth of Digitalinx. A revamped and growing product line exclusively featuring simple, elegent digital solutions at a shockingly affordable price point.

## SIMPLY PUT,
## DIGITALINX IS HERE FOR ONE REASON,
## **TO MAKE YOUR LIFE EASIER.**

We get it, time is money, Why not finish an install in record time, and save money while doing it? Featuring HDMI extenders that can be powered from either end, slim enough to get mounted behind a flat panel, and boasting features like ethernet passthrough, Digitalinx products don't sacrifice technology for price.

## Unless you're being installed behind a TV.

*Introducing the new DL-HDE100 from:*

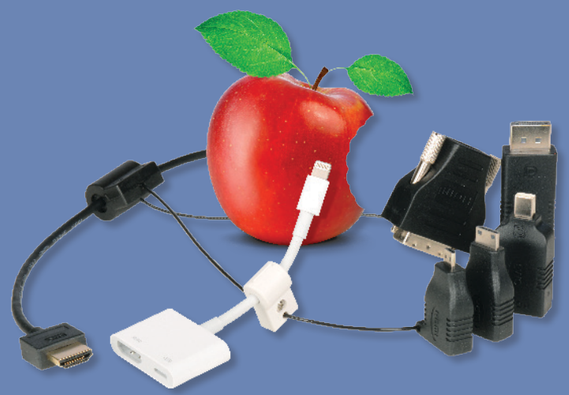
DIGITALINX

No more bulky wall worts. No more cutting holes for wall plates. **No more headaches.**

The DL-HDE100 is compact and feature packed without breaking the bank. The HDMI over twisted pair set boasts ethernet pass-through, bi-directional RS232 and IR, HDCP compliancy, extension up to 330 feet, and is powered from either the transmitter or receiver. A feature packed solution in a slim, easily mounted chassis, the DL-HDE100 is so easy to set up and use, you may forget it's even there.

# WE JUST MADE A GREAT PRODUCT **EVEN BETTER.**

Liberty's patent-pending **DL-AR** was designed out of necessity—boardrooms, lecture halls, meeting rooms, classrooms and other mixed use venues never seemed to have the right cable or connector for the laptop or tablet. And worse, adaptors seem to constantly disappear.

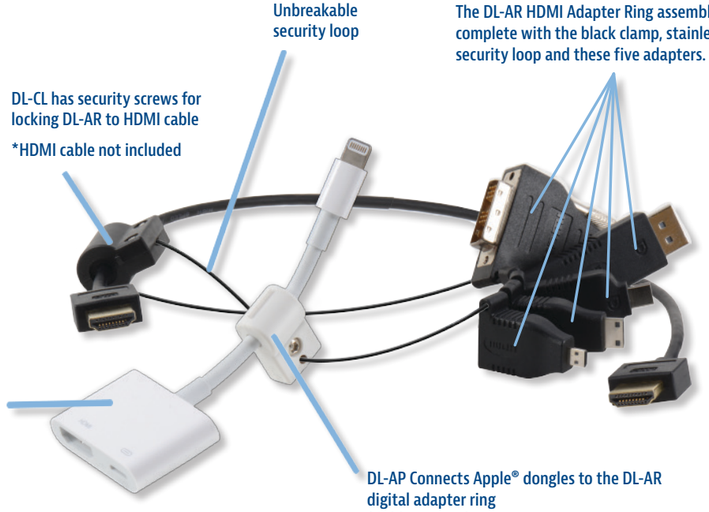


**Key Features**

- Security loop with five HDMI adaptors
- Connects to HDMI cable with secure faux ferrite bead
- Compatible with standard size and micro HDMI cables
- Field upgradeable to add, remove or replace adaptors in the field
- Ideal for boardroom applications to ensure computer and display connectivity

INCLUDES ADAPTERS FOR:

- DisplayPort to HDMI
- Mini DisplayPort to HDMI
- Mini HDMI (C) to HDMI
- Micro HDMI (D) to HDMI
- DVI-D to HDMI


Unbreakable security loop
The DL-AR HDMI Adapter Ring assembly comes complete with the black clamp, stainless steel security loop and these five adapters.
DL-CL has security screws for locking DL-AR to HDMI cable
*HDMI cable not included
Connect the DL-AP to the Lightning Digital Adapter
*Adapter sold seperately
DL-AP Connects Apple® dongles to the DL-AR digital adapter ring
*Sold seperately

intelix DIGITAL DONE DIFFERENTLY®

**Forget searching for the right adaptor...the DL-AR ensures connectivity is always connected to your cable**



DL-AR | DL-CL | DL-AP DIGITALINX ADAPTER RING DIGITALINX

# NEVER LOSE AND ADAPTER AGAIN.

The **DL-AR** provides five adaptors that securely mount to any HDMI cable. Plus, security screws allow integrators to add, remove or replace adaptors.

And now, Liberty's revolutionary HDMI Adapter Ring now offers a white clamp **(DL-AP)** that comfortably secures your Apple® adapters to the same ring with the rest of the adapters! You can also now purchase Apple® Lightning & 30-Pin AV adapters directly from Liberty.

Provide your customers with an all-in-one presentation solution, exclusively from Liberty!

Create your own customized HDMI adapter ring "ala carte" with any of these options!

**DL-AR**
HDMI adapter ring complete assembly

**ARMDHD**
Mini-HDMI "C" ,male to HDMI female in-Line adapter

**DL-CL**
clamp assembly & foam inserts

*SOLD SEPARATELY

**T10PD**
T-10 Torx® pin driver and 1.5mm hex key wrench tool kit

**ARDVHD**
DVI-D single link male to HDMI "a" female with molded eyelet

**DL-AP**
WHITE clamp assembly & foam inserts

**ARMCHD**
Micro-HDMI "D" male to HDMI female in-Line adapter

**ARDPHD**
Display Port male to HDMI female in-line adapter

**MD098ZM/A**
30-pin digital AV adapter

**ARMDPHD**
Mini-Display Port male to HDMI female in-Line adapter

DIGITALINX

**MD826ZM/A**
Lightning digital AVadapter

# SIMPLY PUT, DIGITALINX IS HERE FOR ONE REASON, **TO MAKE YOUR LIFE EASIER.**

The DL-HDE100 is compact and feature packed without breaking the bank. The HDMI over twisted pair set boasts ethernet pass-through, bi-directional RS232 and IR, HDCP compliancy, extension up to 330 feet, and is powered from either the transmitter or receiver. A feature packed solution in a slim, easily mounted chassis, the DL-HDE100 is so easy to set up and use, you may forget it's even there.

## TWO POWERFUL SOLUTIONS FOR A VARIETY OF INSTALLS

### DL-HDE100

#### Product Description

The DigitaLinx **DL-HDE100** extender set transmits HDMI, Ethernet, bidirectional IR, and RS232 up to 100 meters away using a single twisted pair cable.

Built-in surge protection and diagnostic LEDs ensure hassle-free and robust installations. Flexible power design allows the units to be powered at either the TX or RX end, and only one power supply is required. The 18 volt power supply is secured with a screw-on connector to prevent the power from being accidentally disconnected.

The **DL-HDE100** is sold only as a set. Accessories include two IR emitters, two IR receivers, and two pairs of mounting brackets with screws. The individual transmitter and receiver are not compatible with other HDBaseT devices due to proprietary PoE circuitry.

#### Features & Benefits

- HDMI transmission up to 330 feet (100m)
- 1080p, 4Kx2K & 3D compatible
- CEC supported
- Built-in surge protection
- Diagnostic LEDs
- HDCP compliant
- Bidirectional wideband IR and RS232 pass-through
- 100-BaseT Ethernet pass-through
- Flexible power design (use power supply at TX or RX)
- Locking power connector

### DL-HD70

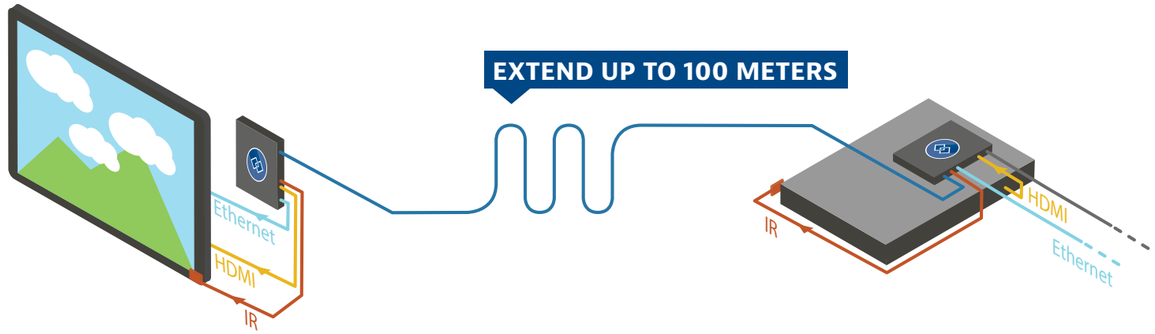
Ideal for less demanding installations, the **DL-HD70** extends signals up to 70 meters and does not support Ethernet pass-through.

#### Features & Benefits

- HDMI transmission up to 230 feet (70m)
- 1080p, 4Kx2K & 3D compatible
- CEC supported
- Built-in surge protection
- Diagnostic LEDs
- HDCP compliant
- Bidirectional Wideband IR and RS232 passthrough
- Flexible power design (use power supply at TX or RX)
- Locking power connector



DL-HDE100 / DL-HD70 HDMI EXTENDER SET. DIGITALINX




## DL-HDE100 / DL-DH70 TECH SPECS

### I/O CONNECTIONS

| | |
|---|---|
| HDMI | One (1) HDMI Type A Receptacle |
| Twisted Pair | One (1) 8P8C port (Shielded RJ45) |
| Ethernet *(DL-HDE100 only)* | One (1) 8P8C port (Shielded RJ45) |
| IR Input | One (1) 3.5mm TRS Jack |
| IR Output | One (1) 3.5mm TS Jack |
| RS232 | One (1) 3-Pole Euroblock connector |
| 12V DC Power | One (1) 5.5 mm Outside Diameter, 2.1 mm Inside Diameter Barrel (Locking) |

### SUPPORTED AUDIO, VIDEO AND CONTROL

| | |
|---|---|
| Maximum Video Compatibility with Cat 6 or greater cable | *(DL-HDE100)* -90 m: Deep Color 48/36/30/24 Bit at 1080p, 3D, and 4k x 2k<br><br>*(DL-HD70)* -60 m: Deep Color 36/30/24 Bit at 1080p -35 m: Deep Color 48 Bit at 1080p, 3D, and 4k x 2k |
| Maximum Video Compatibility with shielded Cat 6 or greater cable and shielded connectors | *(DL-HDE100)* -100 m: Deep Color 48/36/30/24 Bit at 1080p, 3D, and 4k x 2k<br><br>*(DL-HD70)* -70 m: Deep Color 36/30/24 Bit at 1080p -40 m: Deep Color 48 Bit at 1080p, 3D, and 4k x 2k |
| Video Compliance | HDMI, HDCP, and CEC (Consumer Electronics Control) |
| Embedded Audio | Up to PCM 8 channel, Dolby Digital TrueHD, and DTS-HD Master Audio |
| Input DDC Signal | 5.0 volts p-p (TTL) |
| Input Video Signal | 0.5 to 1.0 volts p-p |
| IR Carrier Frequency Range | 33-55kHz at 5 volts |
| Ethernet | 100BaseT |
| RS232 Baud Rate | Up to 115200 baud |
| Speaker Output | One (1) 4-Pole/5.08mm Euroblock |

### HDBASET SIGNAL CHARACTERISTICS

| | |
|---|---|
| Maximum Distance | 100 m |
| Cable Requirements | Category 6 or greater with TIA/EIA-568B crimp pattern |
| Bandwidth | 10.2 Gbps |
| Gain | 0 dB – 10 dB at 100 MHz |
| Resolution Range | 800x600 – 1920x1200 |
| Signal to Noise Ratio (SNR) | > 70 dB at 100 MHz over 100 m |
| Return Loss | < -30 dB at 5 KHz |
| Total Harmonic Distortion (THD) | < 0.005% at 1 KHz |
| Min-Max Signal Level | < 0.3 V – 1.45 Vp-p |
| Differential Phase Error | ±10° at 135 MHz over 100 m |

### CHASSIS AND ENVIRONMENTAL

| | |
|---|---|
| Enclosure | Painted steel |
| Dimensions | 135mm x 74mm x 15mm (5.31 in. x 2.91 in. x 0.59 in.) |
| Shipping Weight | 0.82 kg (1.8 lbs.) |
| Operating Temperature (Environment) | 0° to +40° C (+32° to +104° F) |
| Operating Temperature (Chassis) | 31° C (88° F) (S); 38° C (100° F) (R) |
| Operating Humidity (Environment) | 20% to 90%, Non-condensing |
| Storage Temperature (Environment) | -10° to +60° C (+14° to +140° F) |
| Storage Humidity (Environment) | 20% to 90%, Non-condensing |

### POWER, ESD, AND REGULATORY

| | |
|---|---|
| Maximum Power Consumption | 3 watts (S), 6 watts (R) |
| Power Supply | 12vDC |
| ESD Protection | 15kV |
| Regulatory | CE, RoHS |

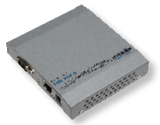
### OTHER

| | |
|---|---|
| Standard Warranty | 2 Years |
| Diagnostic Indicators | Power, Status, Link, and HDCP LEDs |
| Included Items | Installation guide, power supply, US power cord, IR emitters (2 ea), IR receivers (2 ea), mounting "L" brackets (4 ea), mounting screws (4 ea) |

# TWISTED PAIR EXTENDER LINE CARD

intelix DIGITAL & ANALOG DEVICES

## TWISTED PAIR EXTENDER OVERVIEW



### DIGI-HDE — HDMI, Bi-directional Wideband IR, RS232 and Ethernet

BEST

- 330 feet @ 1080p (Cat 6)
- Extension over a single twisted pair cable
- HDBaseT
- 3D compliant
- 4Kx2K and lossless audio formats
- Powered at transmit and receive

### DIGI-HD60C — HDMI, Bi-directional Wideband IR and RS232

BEST

- 200 feet @ 1080p (Cat 6)
- Extension over a single twisted pair cable
- HDBaseT-Lite
- 3D compliant
- 4kx2k and lossless audio formats
- Flexible power at transmit or receive

### DIGI-HD70 — HDMI

BEST

- 230 feet @ 1080p (Cat 6)
- Extension over a single twisted pair cable
- HDBaseT-Lite
- 3D compliant
- 4kx2k and lossless audio formats
- Powered at transmit and receive

### DIGI-HD-IR3 — HDMI and Bi-directional Wideband IR

BETTER

- 110 feet @ 1080p (Cat 6)
- Extension over dual twisted pair cables
- Traditional twisted pair extender (TMDS)
- 3D compatible
- 220 ft @ 1080i/720p (Cat 6)
- EDID management
- Powered at transmit and receive

### DIGI-HD-IR3-WP — HDMI and Bi-directional Wideband IR

BETTER

- 110 feet @ 1080p (Cat 6)
- Extension over dual twisted pair cables
- Traditional twisted pair extender (TMDS)
- 3D compatible
- 220 ft @ 1080i/720p (Cat 6)
- EDID management
- Powered at transmit and receive

### DIGI-HD-UHR2 — HDMI

BETTER

- 110 feet @ 1080p (Cat 6)
- Extension over a single twisted pair cable
- Traditional twisted pair extender (TMDS)
- 3D compatible
- 220 ft @ 1080i/720p (Cat 6)
- EDID management
- Powered at transmit and receive

### DIGI-HD-UHR2-WP — HDMI

BETTER

- 110 feet @ 1080p (Cat 6)
- Extension over a single twisted pair cable
- Traditional twisted pair extender (TMDS)
- 3D compatible
- 220 ft @ 1080i/720p (Cat 6)
- EDID management
- Powered at transmit and receive

### DL-HDCAT — HDMI

GOOD

- 100 feet @ 1080p (Cat 6)
- Extension over dual twisted pair cables
- Traditional twisted pair extender (TMDS)
- 3D compatible
- 220 ft @ 1080i/720p (Cat 6)
- Powered at receive

### DL-HDCAT-WP — HDMI

GOOD

- 100 feet @ 1080p (Cat 6)
- Extension over dual twisted pair cables
- Traditional twisted pair extender (TMDS)
- 3D compatible
- 220 ft @ 1080i/720p (Cat 6)
- Powered at receive

### DIGI-HDMI-HR — HDMI

GOOD

- Not rated for 1080p
- Extension over dual twisted pair cables
- Traditional twisted pair extender (TMDS)
- 150 ft @ 1080i/720p (Cat 6)
- Powered at send or receive



# DL-AOCHP HDMI FIBER CABLES

LIBERTY AV SOLUTIONS

The DL-AOCHP Series of fiber cables. extends HDCP compliant HDMI signals via an extremely flexible, plenum rated, polymer optical hybrid cable assembly. Utilizing active circuitry in the permanent HDMI connectors, HDMI signals with video resolutions up to 1080p60 deep color (6.75Gbps) can be transmitted on fixed length cables ranging from 10 meters up to 60 meters. The HDMI to optical conversion circuits only draw 0.07 watts of power, which is provided by pin 18 of the HDMI ports on the connected devices.

Since this is a hybrid fiber optic cable, the DL-AOCHP is immune to electromagnetic (EM) and radio frequency (RF) interference, which could degrade signal performance, and the signals on the cable will not interfere with other sensitive electronic equipment. The fiber optic cable diameter does not increase with cable length which is not the case with traditional copper HDMI cable solutions.

### Features & Benefits

- Plenum rated cable for all installations
- Ultra-small diameter cable
- No additional power required
- Hybrid copper/fiber supports “Hot Plug Detect”
- Lengths: 10,15,20,23,30,40,50,60,70,80,90, and 100m
- HDMI high speed, 10.2Gbps, 4Kx2K, 3D, all audio formats
- Does not support ethernet or audio return

### Available Lengths

- DL-AOCHP cables are currently available in 10, 15, 20, 23, 30, 50, and 60 meter lengths.

# CELERITY - PRE-TERMINATED FIBER HDMI CABLES

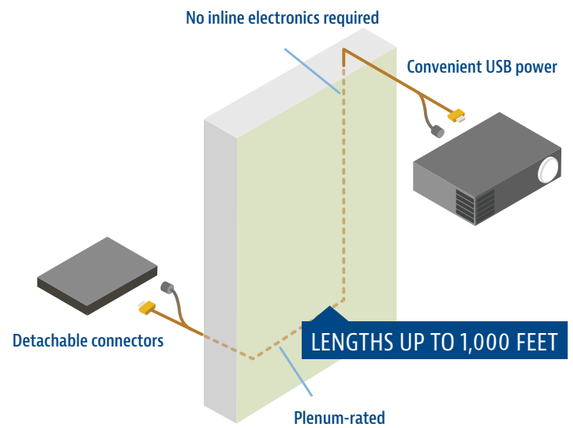
Celerity delivers the performance and transmission distance of fiber without the tedious terminations and costly fiber tools. Available in lengths up to 1,000 feet, Celerity cables feature thin, flexible plenum-rated cable with detachable HDMI connectors. And with a 60 lb. pull rating, Celerity will stand up to even the most strenuous installations.

### Available Lengths

- 35 feet
- 40 feet
- 50 feet
- 60 feet
- 80 feet
- 100 feet
- 160 feet
- 200 feet
- 500 feet
- 1,000 feet

### Key Features

- Pre-terminated lengths up to 1,000 feet
- Plenum rated
- Ultra-small diameter cable
- Detachable HDMI connectors for easy pulling through conduit
- 60 lb pull rating
- USB power required
- High-speed with Ethernet
- 10.2 Gbps / 4kx2k / 3D / CEC
- 1080p and 3D extension up to 1,000 feet



# E-MHDM-M MICRO HDMI CABLES

## Features & Benefits

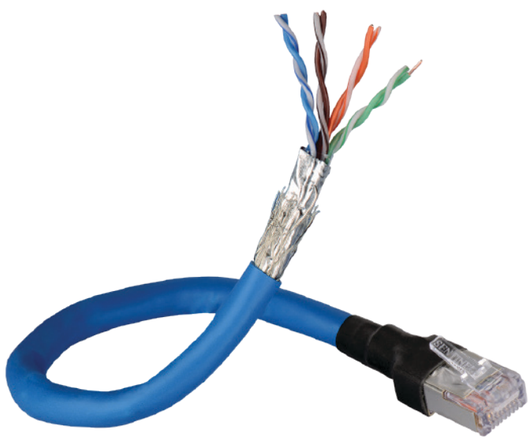
- HDMI “A” male to “A” male Connectivity
- All Gold plated contact surfaces
- Ultra small flexible diameter cable 3.6mm
- 36 AWG TMDS pair construction
- Dual layer foil and high % braid shielding
- Flexible polyvinyl chloride jacket
- AWM rating, RoHS compliant
- Third party ATC certified HDMI(R) high speed
- 10.2 Gbps / 4Kx2K / 3D / CEC
- All HDMI audio formats supported

## Available Lengths

- 2 ft
- 3.3 ft
- 5 ft
- 6.6 ft
- 10 ft
- 13.2 ft

# LLINX-HD HDBaseT CABLES

Factory verified to exceed category 5 performance.



## Features & Benefits

- Very high bandwidth SF/UTP dual shielded LAN cable
- 24 AWG solid bare copper conductors
- Standard category configured core with
- Dual shields of foil and tinned copper braid
- Flame rated polyvinyl chloride jacket
- Factory verified to exceed Category 5e performance
- NEC Rated CMR, CEC Rated CMG FT4, RoHS compliant
- 1000 foot spools standard

## Essentials

- CatMaster Shielded RJ45 Plug For Category 5e Cable

- Category 5e Shielded 8P8C RJ45 Plug With 360 Degree Shielding

# OUR STRATEGICALLY DISTRIBUTED BRANDS

Arrive® provides innovative hardware and software platforms that offer unified communications & collaboration (UC&C) and networked media solutions (NMS).

Arrive’s transformational technology architecture called “Edgeless Media®”(EM) is based on the reality that in today’s “cloud connected world” devices no longer perform functions that are just constrained within the box, nor within the physically defined schematic geometry. Arrive next generation devices function as gateways to the whole wide world by performing functions that are “inside and outside the box”.

Arrive’s Edgeless Media® architecture is created to provide the ability for systems integrators, IT Managers and Facility Managers to benefit from the AV-IT crossover opportunity of merging the wired world of AV with the wireless and cloud of IT.

Atlas Sound manufactures communications products for the commercial, broadcast, industrial, institutional, security, custom installation (home), and music markets. Its catalog of products includes sound reinforcement systems; emergency communications systems; intercom/telecom products; residential infrared electronics; sound masking systems; IP addressable public address system technology, electronic equipment cabinetry; indoor/outdoor loudspeaker systems; microphone stands, speaker stands, and accessories.

Atlas Sound products are also designed to meet the specific needs and provide solutions for the custom home installation market. Premium products include a wide variety of weather-resistant products, high-fidelity speaker systems for in-ceiling, in-wall and outdoor application; subwoofers, WhisperTouch® volume controls, switching devices, and infrared repeaters.

Founded in 1922, Tripp Lite is a dynamic, forward-thinking company with a strong commitment to the success and satisfaction of its business partners and customers. For more than 90 years, our company has been meeting and mastering the challenges of an ever-evolving business environment. Today, Tripp Lite offers more than 2,500 products, ranging from network-grade UPS systems to cables for every application. On the desktop, in the data center, wherever power and information flow, products and services that solve customers’ problems and meet their highest expectations are the hallmarks of a Tripp Lite solution.

Niveo Technology is a range of high quality computer AV networking products, designed in Europe.

Backed by over 15 years of industry experience, all products are conceived, designed and perfected by a dedicated team of industry professionals in Europe. Niveo Professional is not a “One size fits all” IT product vendor that is sold in the corner shop. The Niveo Professional portfolio is specifically designed for the Custom Install market and build with such standards and components to enable optimal enjoyment of your high quality AV products. Niveo Professional builds on experience direct from the custom installers.

For over six decades, PPC’s professional broadband, telecom, and satellite products have delivered signal behind the walls of over 100 million homes. Today, the quality/bandwidth demands of HD home theatre drive a new consumer quest for professional-grade connections from the wall to the system. Recognizing that desire, PPC® created the Perfect Path™ line of in-home cable and connections, finally completing a Perfect entertainment signal from its cable/satellite inception to the back of the HDTV.

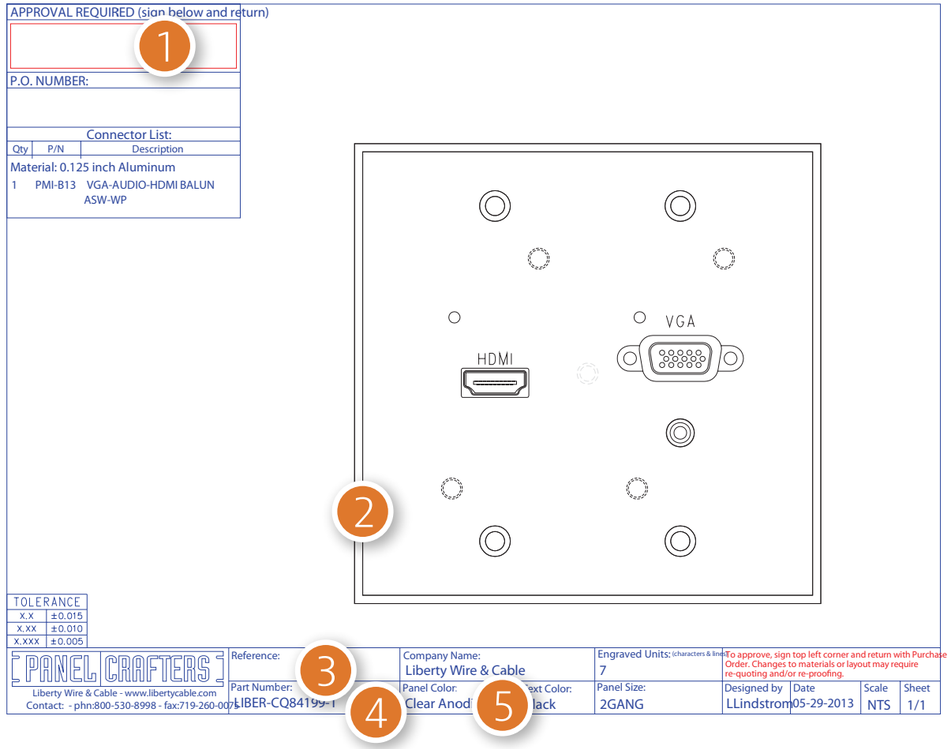
Celerity Technologies develops high performance, easy to use fiber optic products for residential and commercial AV systems. Celerity’s first breakthrough innovation, Detachable Fiber Optic HDMI has become successful with professional AV installers for single and multi-room video systems. Celerity’s sleek, thin fiber optic cable with detachable connectors and high bandwidth makes it easy for installation and provides the ultimate video performance.

# QUOTES AND UP-FRONT PROOFING

PanelCrafters™ offers the most streamlined and accurate proofing process in the industry. Proofs are consistent between our on-line quoting programs and quotes produced by PanelCrafters staff. PanelCrafters up-front proofing process makes the quote-to-order process fast and easy.

Guaranteed FLAWLESS Quality

Up-front proofing ensures that we produce your panels exactly as you requested so your highest quality plates and panels are on-time – every time. Requests that include non-stock materials or require additional engineering may be quoted and returned without design proofs. When ordered, these parts will be engineered and proofs will be submitted prior to production. No ordered product can be manufactured without your signed proof.




**1** Approval box for you to sign when ordering plates

**2** Precise graphical representation of the finished plate
Lead time and pricing breakdowns by requested quantity

**3** Company and project reference information (provided by you)
Full dimensions are shown when needed to ensure accuracy

**4** Unique part number for each plate or panel design
(for easy ordering and reordering)

**5** Plate specifications including plate color and finish

**Need Help?**
**Call or Email!**
**sales@panelcrafters.com**
**800.530.8998**





LIBERTY AV SOLUTIONS

# WHY LIBERTY HDMI CABLES?

- High quality product
- 3rd party certified
- Competitive pricing
- Guaranteed compliant
- Many lengths to choose from
- Micro and field terminable options
- PVC and plenum options
- Active construction on longer lengths

## HIGH-SPEED — DLX-HDSM

Ideal for home theater applications

- Gold-plated connector
- Full metal connector hood
- 28 AWG triple shielded cable
- Polypro mesh netted cable jacket
- High-speed HDMI ATC certified
- 10.2 Gbps / 4kx2k / 3D / CEC / Audio Return
- Available in retail packaging
- Available in 1m, 2m and 3m lengths

## HIGH-SPEED WITH ETHERNET — E-HDSEM-M

Ideal for commercial and custom installation applications

- 30 AWG triple shielded cable
- NEC CL2 and CEC FT4 for in-wall use
- High-speed with Ethernet HDMI ATC certified
- RoHS compliant
- 10.2 Gbps / 4kx2k / 3D / CEC / Audio Return
- Available in lengths from 0.5m to 20m

## STANDARD-SPEED WITH ETHERNET — E-HDM-M

Ideal for commercial and custom installation applications

- 30 AWG triple shielded cable
- NEC CL2 and CEC FT4 for in-wall use
- RoHS compliant
- 2.25 Gbps / 1080p / CEC / Audio Return
- Standard-speed with Ethernet HDMI ATC certified
- Available in lengths from 0.5m to 35m

## ECONOMY HIGH-SPEED — Z100HD

Ideal for cost sensitive installations

- 28 AWG dual shielded cable
- High-speed HDMI ATC certified
- RoHS compliant
- FR-PVC, Flame Rated Jacket
- 10.2 Gbps / 4kx2k / 3D / CEC / Audio Return
- Available in 6ft, 10ft and 12ft lengths
- Sold in bulk packages of 10 units

## PLENUM-RATED HIGH-SPEED WITH ETHERNET — P-HDM-M-08

Ideal for plenum regulated installations

- 24 AWG triple shielded cable
- Gold-plated connector
- High-speed with Ethernet HDMI ATC certified
- CMP 75C plenum-rated
- 10.2 Gbps / 4kx2k / 3D / CEC / Audio Return
- Available in lengths from 3m to 8m

## PLENUM-RATED STANDARD-SPEED WITH ETHERNET — P-HDM-M-10

Ideal for plenum regulated installations

- 24 AWG triple shielded cable
- Gold-plated connector
- Standard-speed with Ethernet HDMI ATC certified
- CMP 75C plenum-rated
- 2.25 Gbps / 1080p / CEC / Audio Return Available in lengths of 10m and 12m

## PLENUM-RATED HIGH-SPEED — P-HDM-M-15

Ideal for plenum regulated installations

- 24 AWG triple shielded cable
- Gold-plated connector
- High-speed
- Active equalization and boosting built-in
- CMP 75C plenum-rated
- 10.2 Gbps / 4kx2k / 3D
- Available in lengths from 15m to 30m

## FIELD-TERMINABLE CABLES — DL-HDMCBL

Ideal for in-the-field terminations and custom lengths

- High-speed with Ethernet HDMI ATC certified
- Triple shielded
- Patented twin ribbon cable design
- Small flexible diameter for tight bends
- Terminates in minutes with custom crimp tool
- UL Listed
- Available in 250 and 500 bulk spools
- Connectors sold separately

# WHY LIBERTY CATEGORY CABLES?

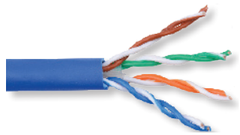
- High quality product
- 3rd party certified by UL or ETL
- Guaranteed compliant
- Competitive pricing
- Cool Spool® reels and payout boxes
- Complete line card
- Shielded and unshielded
- Plenum and riser rated

## HOMETRAX™ CATEGORY 5E — 24-4P-L5-HT (PVC)

VALUE

Ideal for budget conscious installations

- Solid annealed bare copper conductors
- Durable high density polyethylene insulation
- Tightly twisted and unshielded
- NEC CMR, CEC CMR FT4, RoHS compliant
- Nested box packaging
- ANSI/TIA-568C verified category 5e
- Positive ACR to 200 MHz
- Available in four colors

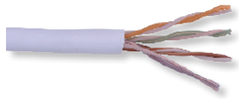


## HOMETRAX™ CATEGORY 6 — 24-4P-L6-HT (PVC)

VALUE

Ideal for budget conscious installations

- Solid annealed bare copper conductors
- Durable high density polyethylene insulation
- Tightly twisted and unshielded
- NEC CMR, CEC CMR FT4, RoHS compliant
- Nested box packaging
- ANSI/TIA-568C verified category 6
- Positive ACR to 275 MHz
- Available in four colors



## EN SERIES CATEGORY 5E — 24-4P-L5-EN (PVC) | 24-4P-P-L5-EN (PLENUM)

GOOD

High quality for superior performance

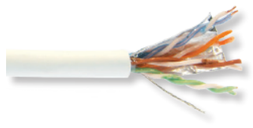
- Solid annealed bare copper conductors
- HDPE or FEP insulation
- Tightly twisted and unshielded
- CMR or CMP rated, RoHS compliant
- Cool Spool® and nested box packaging
- ANSI/TIA-568C verified category 5e
- Positive ACR to 350 MHz
- Available in ten colors

## EN SERIES CATEGORY 6 — 24-4P-L6-EN (PVC) | 24-4P-P-L6-EN (PLENUM)

GOOD

High quality for superior performance

- Solid annealed bare copper conductors
- HDPE or FEP insulation
- Tightly twisted and unshielded
- CMR or CMP rated, RoHS compliant
- Cool Spool® packaging
- ANSI/TIA-568C verified category 6
- Positive ACR to 550 MHz
- Available in ten colors



## SHIELDED F/UTP CATEGORY 5E — 24-4P-L5SH-EN (PVC) | 24-4P-P-L5SH (PLENUM)

GOOD

High quality for superior performance

- Solid annealed bare copper conductors
- HDPE or FEP insulation
- Tightly twisted and overall foil shielded
- CMR or CMP rated, RoHS compliant
- Cool Spool® packaging
- ANSI/TIA-568C verified category 5e
- Positive ACR past 200 MHz
- Available in four colors

## SHIELDED F/UTP CATEGORY 6 — 24-4P-L6SH (PVC) | 24-4P-P-L6SH (PLENUM)

GOOD

High quality for superior performance

- Solid annealed bare copper conductors
- HDPE or FEP insulation
- Tightly twisted and overall foil shielded
- CMR or CMP rated, RoHS compliant
- Cool Spool® packaging
- ANSI/TIA-568C verified category 6
- Positive ACR past 300 MHz
- Available in three colors

## SHIELDED F/UTP CATEGORY 6A — 24-4P-L6ASH (PVC)

BEST

High quality for superior performance

- Solid annealed bare copper conductors
- High Density Polyethylene Insulation
- Tightly twisted and overall foil shielded
- NEC CMR, CEC CMR FT4, RoHS compliant
- Cool Spool® packaging
- ANSI/TIA-568C verified category 6A
- 10 Gigabit Ethernet infrastructure cable
- Available in white

## DUAL SHIELDED 24 AWG 4 PAIR HDBaseT CABLE — LLINX-HD (NON-PLENUM)

BEST

High quality for superior performance

- Very high bandwidth SF/UTP dual shielded LAN cable
- 24 AWG solid bare copper conductors
- Standard category configured core with
- Dual shields of foil and tinned copper braid
- Flame rated polyvinyl chloride jacket
- Factory verified to exceed category 5e performance
- NEC rated CMR, CEC rated CMG FT4, RoHS compliant
- 1000 foot spools standard





# WHY LIBERTY SPEAKER CABLES?

- More colors and styles
- 250, 500 & 1,000 foot put-ups
- Cool Spool® adjustable tension boxes
- Competitive pricing
- Splice free reels with sequential foot markings
- THX® certified models
- Custom imprinting available

## HOMETRAX™ — Ideal for budget conscious installations

GOOD

- 41-strand annealed bare copper conductors
- Semi-rigid PVC insulation
- Twisted, unshielded
- NEC CL3 or CM, CEC CMG FT4 for Audio Only, RoHS compliant
- 14/2, 14/4, 16/2 & 16/4 options

## CLEAR ZIP — Ideal for in-room residential installations

GOOD

- High strand counts
- Oxygen free copper
- Non-UL rated
- 12/2, 14/2 & 16/2 options

## DIRECT BURIAL — Ideal for outdoor and underground installations

GOOD

- Stranded annealed bare copper conductors
- NEC CL3, RoHS compliant
- Low density polyethylene insulation for lower capacitance
- Twisted, unshielded
- Sunlight resistant, suitable for direct burial
- 12/2, 12/4, 14/2, 14/4, 16/2 & 16/4 options

## KNOCKOUT+™ — Ideal for medium-duty installations

GOOD

- 65-strand annealed bare copper conductors
- Semi-rigid PVC insulation
- Twisted, unshielded
- Available in five colors
- 25% heavier jacket than industry standard
- NEC CL3 or CM, CEC CMG FT4, RoHS compliant
- 14/2, 14/4, 16/2 & 16/4 options

## COMMERCIAL GRADE — Plenum and Riser installations

BETTER

- Stranded annealed bare copper conductors
- Twisted, both shielded and unshielded options
- Available in up to four colors
- Non-Plenum NEC CL3R or CMR, CEC CMG FT4
- Plenum NEC CL3P or CMP, CEC CMP FT6
- 12/2, 12/4, 14/2, 14/4, 16/2, 16/4, 18/2 & 18/4 options

## EXTRAFLEX™ — Best selling speaker cable for heavy-duty installations

BETTER

- 105-strand oxygen-free copper (OFC) conductors
- Pressure extruded PVC jacket for optimal roundness and extreme flexibility
- Twisted, unshielded
- Available in up to six colors
- Semi-rigid PVC insulation
- EZ-strip paper tape binder with optional ripcord
- UL13 CL3 and CMG FT4 for in-wall applications
- RoHS compliant
- 12/2, 12/4, 14/2, 14/4, 16/2, 16/4, 18/2 & 18/4 options

## ULTRACAP™ — THX™ certified for the most demanding of installations

BEST

- THX™ certified
- Very high strand rope lay annealed bare copper conductors
- Foamed polyethylene insulation for low capacitance
- Pressure extruded PVC jacket for optimal roundness and extreme flexibility
- Available in two colors
- EZ-strip paper tape binder with optional ripcord
- Twisted, unshielded
- NEC CL3R or CMR, CEC CMG FT4 for audio only, RoHS compliant
- 12/2, 12/4, 14/2, 14/4 & 16/2 options

## TIGHT TUBE PLENUM™ — True high strand Speaker Cable in Plenum

BEST

- Stranded annealed bare copper conductors
- Plenum-rated PVC alloy insulation
- Twisted, unshielded
- Available in five colors
- Thickest plenum jacket permitted for smoothness and less convolutions
- NEC CL3P or CMP, CEC CMP FT6, RoHS compliant
- 10/2, 12/2, 14/2, 16/2, & 16/4 options

## Matching connectors for all cables

**RJ45 Plugs for Cat 5e**
- Standard: 10005USOP
- CatMaster™ EZ-RJ45®: 100003B
- Shielded: 111S08080016-34

**RJ45 Plugs for Cat 5e**
- Standard: 11108080034
- CatMaster™ EZ-RJ45®: 100011LW
- Shielded: 111S08080091C34

**RJ45 Plugs for Cat 6A and Cat 7**
- Tool-less: 1401405012-I
  (also works on Cat 5e and 6 cables)

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AV SOLUTIONS

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